



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,786	11/18/2003	Steve JungHyun Hong	MV03-004	4565
7590 Michael B. Atlass Unisys Corporation Unisys Way, MS/E8-114 Blue Bell, PA 19424-0001			EXAMINER WANG, JUE S	
			ART UNIT 2193	PAPER NUMBER
			MAIL DATE 03/17/2009	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/715,786

**Applicant(s)**

HONG ET AL.

**Examiner**

JUE S. WANG

**Art Unit**

2193

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 November 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SG/US)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. Claims 1-20 have been examined.

***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 9-13 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Independent claim 9 recites software *per se* as the system components are merely software (a system comprising two software modules). Software itself is non-statutory. The claims provide no hardware to implement the software. The amendment to the locator module being executable (capable of executing) on a partitioned multiprocessor system does not require the locator module to actually “execute / executing” on said partitioned multiprocessor computer system.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Microsoft** TechNet's "Best Practices for Managing Applications with Process Control" in view of Alfieri (U.S. Patent 5,745,778). The rejections are maintained as indicated by Examiner Roche in the previous office action, except as noted below.

Claims 1, 9, and 14

6. **Microsoft** does not explicitly state dynamically managing the affinity mask for the application group by adding and removing processors from the affinity mask using priority values for the grouped install software application. Though, the reference does state dynamically managing the affinity mask for the application group by adding and removing processors from the affinity mask (*page 2, third bulleted item; page 16, "Managing Affinity for Process Groups", bottom of page; "you can use the only one and first in the row CPU for the processes and then dynamically add the second CPU if needed"*) and assigning priority values for the grouped install software application (*page 21, "Maintaining Nominal Performance for a Process Group", middle of page, "to set up normal priority for the processes and then increase the priority if needed"; page 2, fourth bulleted item*).

**Microsoft** demonstrated that it was known at the time of invention to manage the affinity mask based upon need (*page 16, "Managing Affinity for Process Groups", bottom of page; "you can use the only one and first in the row CPU for the processes and then dynamically add the second CPU if needed"*) and the reference indicated a desire to manipulate based upon maintaining performance criteria (*page 21, section "Maintaining Nominal Performance for a Process Group"*). It would have been obvious to one of ordinary skill in the art at the time of

invention to manage the affinity mask of **Microsoft** using priority values disclosed by **Microsoft**'s teaching. This implementation would have been obvious because one of ordinary skill in the art would be motivated to provide management services based upon need and performance to the processes if highest importance or need, which is clearly indicated by priority.

In addition, Alfieri explicitly teaches dynamically managing the affinity mask (affinity) for the application group (thread group) by adding and removing processors from the affinity mask using priority values for the grouped installed software application (see for instance, col. 8, lines 54-67; col. 9, lines 1-11, col. 3, lines 29-52; col. 4, lines 8-23 and col. 5, lines 4-35, wherein a particular type of thread group is moved up or down groups of CPU based on their priority and the loads), wherein the affinity mask is adjustable during system operation as a function of CPU utilization (via changing the affinity based on the load) (col. 8, lines 54-67; col. 9, lines 1-11). Therefore, it would be obvious to one of ordinary skill in the art to combine the teachings of Microsoft with Alfieri in order to facilitate dynamic movement of thread groups during system operation (col. 2, lines 3-5; col. 9, line 54 – col. 9, line 11).

#### ***Response to Arguments***

7. Applicant's arguments with respect to claims 1-20 regarding the 102 rejections have been considered but are moot in view of the new ground(s) of rejection.

8. The arguments / amendments to the 101 do not cure the problem because the limitations only require a capability to be run on a system which software already does. To constitute a machine the software must be running on the system.

***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Ellert et al. (US 4,809,157).
- Stefaniak et al. (US 6,658,448 B1).
- Bhagat et al. (US 6,782,401 B1).
- Miller et al. (US 7,275,249).

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP §706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jue S. Wang whose telephone number is (571) 270-1655. The examiner can normally be reached on M-Th 7:30 am - 5:00pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lewis Bullock can be reached on 571-272-3759. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lewis A. Bullock, Jr./  
Supervisory Patent Examiner, Art Unit 2193

Jue Wang  
Examiner  
Art Unit 2193